Division of Wildlife Refuges

Narrative Report Routing Slip

Refuge OURAY Year 1964

Chief's Office: ~~Mr. Gillett~~ 8 Mr. Ackerknecht

Mr. Fermanich Miss. Baun

Wildlife: Mr. Ballou Mr. Webster Mr. Stiles

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Job Corps: Mr. Regan Mr. Huenecke

~~Programs~~: Mr. Hazlett 10-18

NARRATIVE REPORT

OURAY NATIONAL WILDLIFE REFUGE

January 1, 1964 to December 31, 1964

Personnel

Don E. Redfearn . . . . . Refuge Manager
January 1 to January 20, 1964. Transferred to RO.

H. J. Johnson . . . . . Refuge Manager
February 12 to December 31, 1964

Keith L. Hansen . . . . . Assistant Refuge Manager
January 1 to September 20, 1964. Transferred to Laguna.

Mrs. JoAnn Coleman. . . . . Clerk Typist
January 1 to October 24, 1964. Resigned.

Mrs. Norma A. Richardson. . . . . Clerk Typist
November 30 to December 31, 1964

Lewis A. Littleton. . . . . Maintenanceman

Alex L. Barney. . . . . Maintenanceman (Temporary)

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OURAY NATIONAL WILDLIFE REFUGE
JANUARY 1 TO DECEMBER 31, 1964

I. GENERAL

A. Weather Conditions.

Data for the following table were obtained from the official weather station at Ouray, located two miles south of the refuge:

	Precipitation This Year				Temperatures	
	Rain	Snow	Normal Precipitation		Max.	Min.
January	0	0	.41		52°	-16°
February	T	1"	.36		54	- 4
March	.08"	1"	.40		70	- 3
April	.75"	0	.60		80	24
May	.42"	0	.70		92	27
June	.49"	0	.71		96	41
July	.45"	0	.52		110	45
August	.07"	0	.73		101	33
September	.72"	0	.61		91	32
October	T	0	.61		82	18
November	1.00"	17" *	.38		66	- 5
December	1.25"	12" *	.28		47	-24
Total	5.23"	31"	6.31	Extremes	110°	-24°

* Water content equivalent included in the rainfall column.

Total precipitation is only 82 percent of normal, but that received was well distributed throughout the growing season and area vegetation did not suffer. Temperatures were near normal for the latter seven months of the year. Spring was slow in arriving and of short duration. It snowed in Vernal on May 5. The last frost occurred at Ouray on April 9. The ground remained frozen in vegetated areas on the refuge into late May. There were 142 frost-free days, with the first fall frost occurring August 30. First snowfall was a bit earlier than usual, November 13-14, and was a lot heavier, 17 inches, than this country usually receives at that time of year.

After November 13 temperatures remained low with refuge ponds and Pelican Lake frozen over. Rivers remained ice free until December 15.

B. Habitat Conditions

1. Water.

During the first part of the year a few holes were kept open in Green River for stock watering purposes until the ice was dissipated by spring. Some 1,000 Mallards and 50 Canadian Geese made use of these "pot holes" during January. Break-up in the river commenced in late February, but ice remained at bankside until late March. Pelican Lake was only 50 percent open at that time. Frigid temperatures delayed snow melt on the watersheds until mid-May.

February, March and April snows on the Yampa River watershed, and that portion of the Green River watershed between Flaming Gorge Dam and Vernal, resulted in flood conditions at the refuge in June. Wood Bottom flooded, and on June 21 one of the old protective dikes around Leota Bottom breached and threatened inundation of the scheduled development site. A hastily constructed emergency dike in a strategic location averted catastrophy.

The flood crested at approximate elevation 4,663. Normal flow is at approximate elevation 4,657. Above normal flow was experienced throughout most of the remainder of the year, ie., elevation 4,658.5 to 4,660.

Thunder-showers during April, May, June, July and September produced flash-floods on localized areas of the refuge, but did little damage. They were beneficial in pointing out a potential hazard to some proposed development, and a possible source of oil polution from adjacent oil fields. The storms were also beneficial to the refuge farm crops by eliminating or supplementing some irrigation.

Irrigation water was allowed to waste into the Sheppard Bottom "Duck Pond," so we did have that area for waterfowl nesting habitat.

All refuge waters, except Green River, were frozen over after November 25. By that date, too, Pelican Lake and other peripheral ponds were frozen. Green River froze the night of December 15.

2. Food and Cover.

The 12-acre 1963 corn crop, an excellent stand, was left unharvested in the field until late winter, at which time it was mowed for use by waterfowl. The last 5 acres were cut in late March and every kernel was gobbled by the arriving spring migrants. They had some competition by a few resident pheasants.

Production of annual weeds and grasses was very good, with an excellent stand of the local "wild millet" produced around the eastern edge of the Leota Bottom flood pool. Smartweed production in Wood Bottom and that portion of Leota Bottom flooded in June was excellent. Regretably, only a small portion of that produced in Wood Bottom, and none of the Leota Bottom, was available for utilization by waterfowl. Deer foraged on it extensively in both locales and antelope spent considerable time in the Wood Bottom stand, although it was not proved they were foraging on the smartweed.

The timber harvest in Leota Bottom made Cottonwood bud and new leaf growth available to deer in March, April and early May, a time when other food was scarce.

Waterfowl, principally some 3,000 Mallards, fed heavily in the 17-acre wheat and 12-acre oats-barley fields in the fall following harvest. That portion of the wheat fields left unharvested, 9 acres, was heavily infested by sunflowers and proved very attractive to deer and pheasants, both before and after it was mowed in early October. Deer also fed heavily on the 1964 corn crop, increased to 30 acres this year, and wherein production fell far below the 1963 yield.

All but 5 acres of the 1964 corn crop, or that portion of the remaining 25 acres left by the deer, was unharvested and will be made available to wintering waterfowl and spring migrants in early 1965.

II. WILDLIFE

A. Migratory Birds.

1. Waterfowl.

Ouray Refuge had little in the way of waterfowl habitat in 1964. The duck pond in Sheppard Bottom was kept full with irrigation tail water, but it wasn't until early June that any significant amount of water was impounded there. Flood waters inundated a portion of Leota and Wood Bottoms, but not until most of the spring migrants had passed on through. Little nesting was reported on the area.

Total use days for both geese and ducks were below the 1962 or 1963 levels. Spring migrants began arriving in the tenth week of the first quarter (mid-March) and had dispersed or passed on northward by May 1. Mallards were the most numerous specie, both as migrants and residents. They peaked at 2,700 in the spring, dwindled to 18 residents during the summer, and peaked at 3,000 during the fall flight. Pintails were

numerous in the surrounding country, but found little to their liking on the refuge where they peaked at 300 in the spring (March) and only 100 in the fall. There were approximately 10,000 Pintails on Pelican Lake on October 7.

Coot numbers peaked at only 80 this year. They reached that number the third week of July, utilizing the Wood Bottom flood pool. Total Coot use days for the year was 2,905.

There is little to be said about Canada Goose use except that it was down. Twenty-two honkers were present in February. The wild population peaked at 31 in March and at 94 in October. Sixty-four were still present in late December to feed in the refuge corn field.

There was a two-day build-up to 72 geese on May 22-23. Since this build-up coincided with the peak flow of the Yampa-Green River flood, we took it as an indication that the flood had destroyed any goose nesting endeavors along the river. The geese apparently stayed on the refuge then moved to Pelican Lake for the remainder of the summer.

Tables 1 and 2, following page , are a summary of the year's waterfowl refuge use.

2. Cranes.
Sandhill Cranes were seen and heard in the area, but they made no substantial use of the refuge. Twenty-three were noted in the farm fields March 2. It was the opinion of several of the local sportsmen that their fall migration started a full month early this year, as some appeared in area grain fields the second week of August.

3. Mourning Doves.
Assistant Manager Hansen, with the able assistance of his wife, banded 700 Mourning Doves this summer. Keith started banding May 7 and discontinued after August 1. Juveniles first appeared in the catch June 17, but it was not until July 1 that any significant number of young were bagged. After that date 88 out of 313 banded, or 28 percent were immature.

4. Other Waterbirds.
With little in the way of habitat suitable for birds of this category, sightings were infrequent. Great Blue Herons and Killdeer were the only ones common. A complete listing may be found on NR 1A.

B. Upland Game Birds.
1. Pheasants.
These Chinese imports were well established and seemed to prosper, although refuge numbers didn't appear to be as

WATERFOWL USE DAYS BY QUARTER

1962, 1963, 1964

Year	January - April		April - August		September - December		Total	
	Geese	Ducks	Geese	Ducks	Geese	Ducks	Geese	Ducks
1964	1,169	70,658	574	11,753	6,185	126,110	7,928	208,521
1963	504	1,579	952	9,429	8,610	211,517	10,066	222,525
1962	980	95,979	4,977	20,342	6,447	153,853	12,404	270,174

TABLE 1

MONTHLY PEAK BY MAJOR SPECIES

February	Can Geese	Mlds	Gdwl	Bpate	Ptail	GW Teal	BW Teal	C Teal	Can Back	Total
1964										
1963	22	50								72
1962										
March										
1964	45	2700		200	300	100				3345
1963						150			30	180
1962	51	1770	4	81	2855	540				5301
April										
1964	31	2400	50	50	25	100	30	25		2711
1963	14	700			400	400	75	25		1614
1962	16	200	90	80	757	115	4			1262
May										
1964	12	160	50		75	75	5	10		387
1963	15	125	4		75	31	2	25		277
1962	22	25	10	2	40	10	14	6		129
June										
1964		45	4				4	2		55
1963	14	127	4		50	15	4	20		234
1962	13	20	20	6	20	15				94
July										
1964	17	36	73		2		5	15		148
1963		18	12		15	6	5	12		68
1962	95	35	6	2	30	5	10	10		193
August										
1964	30	325	22	8	20	20		16		441
1963	43	8	11		7	8				77
1962	135	537			100	5	325	54		1156
September										
1964	83	1060	15	100	50	50	50	100		1508
1963	200	350	6	11		2				569
1962	151	735	95	410	40	50	450	10		1941
October										
1964	94	3000	100	500	100	100	100		40	4034
1963	85	3350	50	150	100	500		10		4245
1962	195	1235	300	410	375	525	225	10	20	3295
November										
1964	47	2000			200	100	100		50	2497
1963	146	4800	50		300	150		15		5461
1962	23	5400	120		30	40			5	5618
December										
1964	64	500								564
1963	34	1600								1634
1962	24									24

TABLE 2

high as one might expect from an unharvested population in very good habitat. The following is an edited version of Assistant Manager Hansen's summary of the 1964 pheasant crow count:

"Counts were started on April 13 and ran through May 19 at weekly intervals. The same stations and procedures as last year were used." (Six stations, two-minute count at each station, starting 30 minutes before sunrise at Station One.)

"The peak, 73 calls, was reached on May 6, and was followed by sharp decline. It is estimated that approximately a quarter of the calls were not heard. This figure is a wild guess, but excellent pheasant habitat exists in Wood and Wyasket." (Bottoms east of Green River and inaccessable except by long drive.)

"Once again, few harems were observed due to heavy cover. The average of those observed was 2.57 hens per cock. Using 2.50 average and expanding the crowing figures to cover that portion (of habitat) not counted, it is estimated that entering the nesting season the refuge had 228 hens and 92 roosters for a total of 320 birds.

"This figure is far below the expected number following last year's count. Perhaps we have reached the carrying capacity of the habitat?"

2. Gambel Quail.
Only one covey of quail was noted during the year. This covey ranged in the northeast corner of Sheppard Bottom.

3. Chukar Partridge.
Hansen recorded observation of 14 Chukars in one covey on February 18.

4. Sage Grouse.
No observations recorded for the year.

C. Big-Game Animals.

1. Mule Deer.
The 1964 fawn crop raised the refuge population to 400+ head. As mentioned before, the deer made considerable use of the refuge farm lands. Seven large bucks took up residence in the corn fields and escaped any danger (legally) of becoming some hunter's prize-winning trophy. Over 100 deer were noted at one time in the farm field complex in Sheppard Bottom in October.

Following November's snow storms, the deer deserted the river bottom and no more than 30-40 could be located on the refuge.

2. Antelope.
Antelope use was confined to the east side of Green River. As mentioned earlier, several sightings were reported in the Wood Bottom smartweed. The first observation of antelope on the refuge for 1964 was made June 15, a lone doe. Twenty-three were the most seen any one day, and the last seen - two - on October 25.

D. Fur Animals, Predators, Rodents and Other Mammals.
Surprising for domestic sheep country such as this, both Coyote and Bobcat were seen several times. Two Bobcat kittens and one adult were shot. Two coons, two skunk, two badgers, and a ferral house cat were trapped and exterminated from the vicinity of the goose pens. Three wild dogs were eliminated.

Cottontail rabbits were plentiful. Jack Rabbits were noted infrequently. Prairie Dogs were seen occasionally on the Sheppard Bottom sandhills, but the population was low.

Beaver still present, but population low.

E. Hawks, Eagles, Owls.
Nine species of Hawks were recorded for the year. Sparrow Hawks were the most common and were seen from April until September. It appears that a Red-tail is a yearlong resident. Two Rough-Legged hawks were noted regularly, and an immature of that specie was still present in late December. Marsh hawks were occasionally seen during summer and fall. Three were the most present on the refuge at any one time. Five Ferruginous were noted one day and for one time only. Three Swainsons were seen just once. A Peregrine falcon was seen four times, and a Prairie falcon was seen October 2.

Eagles may be yearlong residents, but are most common in winter and spring. There were six recorded observations of Bald Eagles and eleven of Golden Eagles. On March 28 thirty-four Bald and three Goldens were noted around Pelican Lake and the refuge.

F. Other Birds.
On April 27, Assistant Manager Hansen identified American Pipits for a new addition to the refuge bird list.

I. Disease.
None noted.

III. REFUGE DEVELOPMENT AND MAINTENANCE

A. Physical Development.
1. Contracts.
Fiscal year '63 construction appropriation for Ouray Refuge was $133,000.00. Fiscal Year '64 funds were $115,000.00.

With these monies four major contracts were let. Three were completed. With the '63 funds contracts 14-16-0002-342, domestic well; 14-16-0002-394, two residences and associated facilities; and 14-16-0002-400, water impoundment facilities in Leota Bottom, were let. With '64 funds contract 14-16-0002-428 for additional impoundment facilities for Leota Bottom was awarded.

Under contract 14-16-0002-342, awarded to Uintah Basin Drilling Company, Roosevelt, Utah, two domestic wells were drilled -- the first being a dry hole. The second was drilled to 50 feet and had water bearing sand from 16 feet to 43 feet. From 43 feet to 50 feet was clay shale. Casing was set to 41 feet. Water rose in the casing to within 10 feet of surface. Water tested 400 parts per million total salts -- very good water for the locale.

Later, when a pump was installed, the pump produced 2,000 gallons per hour at well head with drawdown to 38 feet where level remained constant under pumping. Recovery takes less than an hour. The pump delivers 1,600 gallons per hour to the cistern through a 3-inch pipeline 3,160 feet distant and 100 feet higher than well head.

This contract was completed on January 7. Payment was $2,576.75.

Contract 14-16-0002-394 was awarded to Bert L. Angus, Vernal, Utah, in May. Construction entailed two residences of the standard (?) FWS floor plan, a domestic water system, sewage disposal system, LP Gas system, and gravelled driveway. He was also awarded an extra work order for installing the remote control system to the domestic well pump. The pump and materials were open market purchase, with the pump installed by refuge employees.

Mr. Angus started construction on June 15 and completed in September, with final acceptance on September 26. He did an excellent job of construction on the residences. His bid for the contract was $50,825.06, and the extra work order on the water system was $500.00.

Sterling Construction Company, Farmington, New Mexico, submitted the low bid of $61,984.42 on contract 14-16-0002-400. They started construction on June 20 and completed on October 26. All work was confined to Leota Bottom. Under this contract they dug (approximately) 4½ miles of canal and/or drain, 3,410 linear yards of dike (L1, L2, L4, Main L and drain), six CMP "through-dike" and six concrete "turn-out"

water control structures, two concrete drop structures, a sediment basin with two associated concrete control structures, and a pump structure.

Sterling was also low bidder on 14-16-0002-428, at $69,869.37, for completion of water impoundment facilities in Leota Bottom. Work started on November 5 and was terminated on November 20 due to adverse weather conditions.

Under this contract they are charged with construction of (approximately) 4,500 feet of the west Main Canal; 11,950 feet of the east Main Canal; Dikes L3, L5, L6, L7, L8, L9 (a total of approximately 10,800 linear feet); 17,300 feet of Main Drain dike; plus 12,050 feet of protective dike in conjunction with the east Main Canal. Nine "through-dike" CMP and nine "turn-out" control structures will complete the contract.

Mr. Earnest Morris served as Mr. Francis V. Olson's Project Engineer representative, and Charles T. Bostick as Resident Inspector for the foregoing projects.

2. Brush Clearing.
An informal agreement for equipment rental with operator was negotiated for brush clearing in Leota Bottom. Arnold Robbins, Duchesne, Utah, agreed to a price of $11.45 per hour for a TD18A Dozer. Two hundred hours were expended on approximately 130 acres before available funds were exhausted.

3. Emergency Dike.
Fortunately, Mr. Robbins' equipment and operator were working in the vicinity when the old protective Leota Bottom dike washed out. The operator and machine were used in the hasty construction of an emergency dike to protect the proposed construction area. This dike was one-half mile long, 6 feet high and averaged approximately 20 feet wide at the base. Some 3,590 cubic yards of material for the dike was placed in 49 hours of operation. Cost, $553.05.

4. Goose Nesting Pond.
In fear (realized) that there would be no suitable nesting habitat for that segment of the captive goose flock to be released in 1965, equipment was rented to construct a pond and dike in Sheppard Bottom. This pond can be flooded via the irrigation pump and ditch to create approximately five acres of pond and marsh habitat.

B. Plantings.
4. Cultivated Crops.
All refuge farming occurred in Sheppard Bottom.

Thirty acres were planted to Hybrid variety 544 corn on May 11-12. Planting rate was approximately 11 pounds per acre. Three irrigations brought it to maturity. Production was only 50-55 bushels per acre, due in part to heavy utilization by deer. Five acres were mowed in 1964, the remaining 25 acres were left standing for winter and spring waterfowl use.

Seventeen acres of winter wheat, planted in September of '63 at the rate of 2 bushels per acre, although well utilized by deer and waterfowl as green forage, produced approximately 38 bushels per acre this spring. Eight acres were harvested in August as feed for the captive geese. The other 9 acres, heavily infested with sunflower and wild millet, was shredded down in late September for the fall migrant waterfowl. Deer fed extensively in this 9-acre area before and after shredding.

Twelve acres were planted to a mixture of oats and barley at the rate of 80 pounds oats and 100 pounds barley per acre. Production was estimated at 25 bushels per acre after heavy use by deer. Two Hundred bushel were harvested from 8 acres, and 100 bushels on four acres were shredded in the field for waterfowl. Since this four acres was adjacent to the duck pond, it proved a most attractive area for waterfowl and hosted 200-300 Mallards, and a few Pintail and Teal daily for three weeks before use began to taper off.

Approximately 65 acres of alfalfa, carry over from prior ownership, was irrigated twice by refuge personnel. Two permits were issued for cutting and bailing at $6.66 per ton. Seventy-one tons were harvested. Following the second cutting, some 55 acres of this alfalfa land was plowed up to allow crop rotation in 1965.

Forty acres of fallow land was plowed and prepared to be planted in corn in '65.

C. Collections and Receipts.

1. Seeds and other propagules.
Four bushels seed corn purchased locally.

2. Specimens.
None.

D. Control of Vegetation.
No chemical control of vegetation was attempted.

One Hundred and five acres of Salt Cedar (Tamarix gallica) were mowed with a rotary mower. The stand was solid and height was

from 4 feet to 8 feet. Another 25 acres were plowed under and, as an experiment, 20 acres were bladed by using the motor grader. Under existing conditions this proved very successful with no regrowth apparent. Most of the plants plowed and graded were less than one foot high, although some older growth had reached three feet.

E. Planned Burning.
Vegetation along irrigation ditches was burned prior to spring planting. In addition, the 40 acres of fallow land scheduled for crop rotation was burned over prior to pheasant nesting season. Regrowth on this 40 acres was turned under as a green manure crop.

F. Fires.
No range or property fires occurred. Fire was used as the most economical means of cleaning two old farmsteads after salvage operations.

IV. RESOURCE MANAGEMENT

A. Grazing.
Forage production was very good as a result of late winter snow and summer showers.

Three grazing permits were in effect January 1. Permit No. 36511, LaRue Pickup, Randlett, Utah, 200 AUM, on-and-off basis, 1,320 acres in Wood and Wyasket Bottoms, 10/15/63 to 4/30/64, $0.30 per AUM. This permit was amended April 28 to extend grazing period from May 1 to December 31, 1964, 245 AUM's, on-and-off basis. Permit No. 36512, Ray Sprouse, Vernal, Utah, 319 AUM's, on-and-off basis, 2,840 acres, Sheppard Bottom, November 1, 1963 to April 30, 1964. Permit No. 36513, Gale G. Wilkins, Randlett, Utah, 120 AUM's, 1,100 acres, Leota Bottom, December 26, 1963 to April 15, 1964. This permit amended to continue grazing until May 15, 1964.

Two new grazing permits were issued in 1964. Permit No. 36517 issued to Ray Sprouse, 325 AUM's, 2,840 acres, Grazing Unit No. 5, November 1, 1964 to April 30, 1965; and permit No. 36518 to Gale G. Wilkins, Unit No. 6, 1,100 acres, 180 AUM's, December 1, 1964 to February 28, 1965.

Mr. Pickup and Mr. Sprouse are former land owners and the significance of the "on-and-off" clause in the Special Use Permits is because they have grazing leases adjacent to the refuge. Since our boundary is not fenced, their cattle roam on and off at will.

B. Haying.

Discussed under Cultivated Crops.

Two special use permits were issued for alfalfa harvest. Quality was not of the best.

C. Fur Harvest.
No fur harvest.

D. Timber Removal.
Special Use Permit No. 36514 was issued to Mr. Ivan Anderson of Heber, Utah, to cut and remove 458,000 board feet of Cottonwood timber from the refuge. This harvest was necessary to permit water impoundment development. A special condition of the permit called for felling all timber 6 inches or more base diameter, and all cutting was to be 12 inches or closer to the ground. For these reasons the payment was halved to $1.00 per 1,000 board feet. Mr. Anderson removed approximately 140,000 board feet. The permit has been amended to allow additional time for removal of the remaining timber.

F. Other Uses.
One log building from Tract 492, and 595 salvaged fence posts were sold by informal bid. Ray Sprouse paid $88.50 for the posts, and Mr. Cal Jorgensen bid $5.00 for the house.

V. FIELD INVESTIGATION OR APPLIED RESEARCH

A. Progress Report.
Since it doesn't seem to fit anywhere else, the following account is rendered here:

Ouray Refuge has an approved plan for acquiring Canada Goose goslings from Bear River Refuge and holding them captive until they can be released into the wild their third year to form a nucleus of a nesting population. The program was initiated in 1962 when sixty goslings and two adult geese were acquired. Three of the goslings from this group were lost. In 1963 fifty-six birds were acquired. One was lost. This year we acquired sixty youngsters, but lost one when it broke its neck by flying into the fence.

On Friday, November 13, following the two-day accumulation from a 17-inch snowfall, a combination of the snow's weight and softening of the ground caused the guy wire anchors along the east side of the pens to pull loose and the pens to collapse releasing all captive geese into the wild. The birds, confused to say the least, were incapable of sustained flight. They soon returned to the area to be fed and cared for. We were able to recapture 143, mostly the two- and three-year olds. The yearlings, more capable of flight and less dependent, were more wary and harder to trap. Fifteen of the untrapped segment remained in the area at period's end.

VI. PUBLIC RELATIONS

A. Recreational Uses.
The first archery hunt was held on the refuge August 22 through September 7.

B. Refuge Visitors.

Phil Neilsen	1/2, 1/22	Right-of-way information
Joe Rowell	1/3	Shamrock Oil & Gas Co. Oil drilling
Loren Hunt	1/7	Soil Conservation Service Work unit
D. L. Campbell	1/10	Well driller, well contract
Jay Cordary	1/11-17, 3/31, 4/7, 7/13, 8/26, 11/10-12-13	RO, Branch of Realty Realty matters in area
Harvey Combes	1/15	RO, Branch of Engineers Survey on Refuge
Charles Bostich	1/15, 6/9	RO, Branch of Engineers Survey on Refuge and Residence construction
Bob Ballou	1/16-17	Monte Vista Refuge Wildlife Management
Orsen Neilsen	1/20, 1/24	Leota Irrigation Co. Water shares
Adair Brimhall	2/5	Contractor, Refuge development
Ben Slaugh	2/10	Local resident Water pumps on Refuge
Jack Anderson and Ivan Anderson	2/13	Timber Contractors, Heber Purchase of Cottonwood
Rollin Hornbuckle	2/19	RO, Branch of Realty Appraiser
Barry Williams	2/19	RO, Branch of Realty Appraiser

Ralph Taylor	2/27	Pres., Utah REA Refuge development and funds needed
Owen Morris	2/6	PARC, Salt Lake City Courtesy call
Donald R. Fox	3/10	U. S. Steel Irrigation structures
Ray Sprouse	3/10	Ex-landowner Removal of corral on Refuge
Ashel Manwaring	3/16	Sign construction
Gareth E. Olsen	3/17	E. C. Olsen Co. Pumps and pipeline
Bert Angus	3/19, 5/5-6, 6/9	Building Contractor Residence construction
Curtis Dastrup	3/26	Utah State Fish & Game Courtesy call
Harold Sargent	4/6	First Security Bank Lewis Hall property sale
Royal Slaugh	4/7	Local resident Property salvage
Ted Miller	4/7	Waukesha Eng. & Equip. Pumping operations
Bob Azevedo	4/9	Fisheries Management Courtesy call
Austin Beard	4/9, 5/20	RO, Branch of Realty Courtesy call and realty matters
Don E. Redfearn	4/16	RO Wildlife Management Biologist, Courtesy call
Phillips Const. Co.	4/20	Dike work
Adair Brimhall	4/20	Dike work
Lewis Freestone	4/20	Dike work

Bob Turner	4/22	Turner Building Supply Construction of residences
Walter Nelson	4/27	Fish & Wildlife Service Price, Utah, Courtesy call
Floyd Campbell	4/27, 6/5	Contractor Residence construction
Dan Crumbo	4/30	BIA, Ft. Duchesne Development of refuge
Arvene Cooper	5/4-5	Leota Irrigation Co. Right-of-way
Ray Sprouse	5/12	Grazing permittee Salvage posts on bid
N. G. Amick	5/12	Specs. and Plans, Inv. SFW2-445
Orsen Neilsen	5/13	Leota Irrigation Co. Right-of-way
A. F. Whalen	5/19	Whalen Construction Co., Boise Water impoundment
Mr. Huenich	5/21	WAS O, Tour
Lloyd Gunther	5/21	RO, Assist. Regional Supervisor Tour
David Kimbrell	5/26	RO, Branch of Realty Courtesy call
Bert Coales	5/27	GSA, Office space
Walt Stoddard	6/5	Former land owner Realty matters
H. F. Hopkins	6/5	Salt Lake Pipeline Right-of-way
Willis Stanton	6/9-10	Contracting officer Residence construction
Ernest Morris	6/9	Project Engineer Residence construction
Mr. Ogden and Robert Scott	6/12	RBS, Inter-Agency meeting Ft. Duchesne, BIA

Al Heggen	6/15	Regional Director, Utah State Fish and Game Dept. Oil pollution of Green River
Robert Neilson	6/15	Biologist, Utah State Fish and Game Department Oil pollution of Green River
Clark D. Johnson	7/8	Wildlife Bio., River Basins Field reconnaissance
C. E. Crane	7/11	Public Health Engineer State Department of Health Water pollution
Elmer Yorgersen	7/13	Uintah Basin Tel. Assoc. Manager, Right-of-way
Rodney A. Smith	7/15	U. S. Geological Survey Division of Operation
Paul W. Burchell	7/15	Utah Oil & Gas Conservation Commission, Div. of Operation
Marcus Nelson	7/21	Reg. Supvr., Refuges Development
William Ackernecht	7/21	WAS O, Development
Ernest Morris	7/21-24	RO, Branch of Engineering Progress inspection
Don E. Redfearn	8/4, 8/28, 9/17	RO Wildlife Biologist Hunting and fishing
Austin Beard	7/30 -8/5 8/25-28	RO, Branchof Realty Realty matters
Lynn Greenwalt	8/17-19	RO Assistant Supervisor Inspection
Shelby M. Bently	8/19	State Engineer's Office Water appropriation
Garth O. Talbot	8/19	State Engineer's Office Water appropriation
E. J. Watts	8/26	Worthington Corporation, Courtesy call
Sam Pyeatt	8/27	Manager, Motor Pool 8-6 Courtesy call

Rodger Smith	8/26	USGS Dist. Engineer Oil pollution
Edward J. Watts	8/26	Manager, Worthington Corp. Pumps
Jim Todd	8/27	Park Ranger, National Park Service Jones Hole trip
Darryl L. Steele	8/27	Park Ranger, NPS Jones Hole trip
James W. Todd	9/1	Park Ranger, NPS Jones Hole trip
Garry C. Switzer	9/1	Landscapr Architect, WODC Jones Hole trip
Earl M. Semingsen	9/1	Supt., Dinosaur National Monument, NPS Jones Hole trip
Lewis R. Garlick	9/1	Chief, Div. Sport Fisheries Bur. Sport Fisheries & Wildlife Jones Hole trip
Earl P. LeBeau	9/1	U. S. Fish & Wildlife Jones Hole trip
Gary H. Garlick	9/1	Lewis' son, Courtesy call
William L. Stabler	9/1	Engineer, Bur. Sport Fisheries & Wildlife Jones Hole NFH study
Robert W. Thoesen	9/1	State Engineer's Office Jones Hole NFH
Shelby Bently	9/5	State Engineer's Office Water application
Clark D. Johnson	9/11	RBS, F&WS, Salt Lake City Indian waterfowl development
Thomas Reed	9/15	F&WL, Washington, D.C. Eng. inspection
Anthony J. Opstedal	9/15	F&WL, Albuquerque Inspection
C. F. Hopson	9/16	GSA, ME. D., Chief, Div.
W. Nelson	9/16	PARC, Courtesy call

Owen Morris	9/17, 10/15	PARC, Salt Lake City Courtesy call
Lloyd Gunther	9/23	Asst. Supervisor, Refuges Quarters Survey
William A. Godby	9/29	RO, Hydraulic Engineer Courtesy call
Jim Todd	9/29	Park Ranger, NPS Jones Hole
Walter Nelson	10/5	PARC, Courtesy call
George E. Ford	10/8	Ford & Gregory Construction Bid
Mr. Curry	10/15	GSA, Salt Lake City Office space
R. B. St. John	10/19-20	RO, Branch of Realty Realty matters, appraisals
Ted Conrardy	10/26	RO, Branch of Realty
Elmer Nitchskie	10/26	U. S. Solicitor, Albuquerque
Earl M. Semingsen	10/27	Superintendent, Dinosaur Monument, NPS Meet with Conrardy
William A. Godby	10/28	RO, Hydraulic Engineer Water hearing
Earny Morris	10/26	RO, Branch of Engineering Final inspection on dirt contract
Austen Beard	11/19	RO, Branch of Realty Courtesy call
Allen Niemeyer	11/14	Federal GMA Courtesy call
Danny L. Walton	12/3	Acting Manager, Ogden Inter-agency Motor Pool, GSA Motor Pool survey
Robert L. Smith	12/3	Acting Chief, MEOB, GSA, Denver Vernal Motor Pool survey

Bob Steele	12/8	Dinosaur National Park, NPS Courtesy call
Joseph L. Otfinowski	12/14	U. S. Geological Survey, Topographic, Mapping
Osamu Hattori	12/16	U. S. Geological Survey, Quality of Water water sampling
Ralph L. Pascoe	12/16	U. S. Geological Survey, Quality of Water Water sampling

On August 31 fourteen employees from the Salt Lake City Branch of the Department of Agriculture made a tour of the Refuge.

C. Refuge Participation.

Assistance was given Utah State Fish and Game Department with their annual waterfowl inventory in January. The film "The Mallard" was presented to the Vernal Rod and Gun Club. Manager Johnson attended meetings of the Board of Directors of Vernal Rod and Gun Club whenever possible.

A short talk was presented to the Vernal Chamber of Commerce, and a talk and slide presentation was given to the Vernal Rotary Club during March.

In May Manager Johnson attended the Leota Irrigation Company meeting. In June he attended the Central Utah Project, Bonneville Unit, meeting at Fort Duchesne BIA with RBS personnel.

A nine-year old boy was lost in an area east of the refuge during the night of September 6-7. Assistant Manager Hansen and Maintenanceman Littleton assisted in the all-night search. The boy was found at 7:00 a.m. the next morning.

During October, Manager Hansen assisted State Fish and Game personnel in patrolling Green River.

Manager Johnson has joined the American Legion, Witbeck Post No. 11.

D. Hunting.

A bow season on Mule Deer August 22 through September 7 drew some 20 hunters to the Refuge. They expended approximately 80 man days of hunting effort and bagged 4 deer -- two 4-point (Western count) and two 2-point bucks. No effort was made to take does, although they were legal game. The hunters reported nine wounded animals that were not retrieved. The four bucks taken were in excellent condition.

Rifle hunters took seven deer from private land adjacent to the Refuge. None were in the 263-pound class that last year won the Big Buck Contest rifle for Maintenanceman Littleton.

E. Violations.
There were no violations during this reporting period.

F. Safety.
Regular safety meetings were held throughout 1964 on a monthly basis with all Refuge personnel attending. Topics of discussion included safe operation of tractors, safety precautions in and around the home, chain saw use, and safe driving practices during the winter months. All information contained in safety bulletins and publications received from the Regional Office were also discussed as received.

Ouray Refuge ended 1964 with 1,308 accident free days.

VII. OTHER ITEMS

A. Items of Interest.
Shamrock Oil Company drilled two producing wells on the refuge. The first was completed in Wood Bottom, and the second on Tract 18 on the benchland above the south end of Sheppard Bottom. Neither well turned out to be a good producer so Shamrock has, temporarily at least, lost interest in further drilling in this area.

Flash floods from the Gypsum hills and Wansets Valley area brought to our attention a potential hazard of oil pollution to Wyasket Bottom.

Production practices by Gulf Oil Corporation in the Wansets fields left much to be desired. The Regional Office called the situation to the attention of the U. S. Public Health Service, who investigated in conjunction with the Utah Oil and Gas Conservation Commission. They recommended more stringent house keeping procedures and urged better cooperation. Marked improvement in procedure by Gulf Oil was shown immediately, but all danger of possible contamination cannot be avoided.

Gulf Oil, too, under B.L.M. permit as operator of the Gypsum Hills Unit, which overlaps a portion of the Refuge, on the east side of Green River, drilled several high volume water wells on Tracts 55 and 56 (private ownership) and one on Tract 13a (Refuge owned). This water, in great quantity, is necessary for production and is in reality being used in the Wansets field. They have two additional water wells scheduled to be drilled on the Refuge. They have no immediate plans (two to three years) for oil exploration on the Refuge.

B. Personnel Changes.

As noted on the flyleaf, there were many personnel changes that occurred. In fact, Maintenanceman Lewis A. Littleton is the only employee who completed the year on the area.

Former Manager Don E. Redfearn was promoted and transferred on January 20 to the position of Wildlife Biologist (Planning) in the Regional Office. Johnson was transferred from Aransas Refuge and assumed duties on February 12.

Keith L. Hansen, Assistant Manager, GS-7, was promoted and transferred to the Assistant Manager, GS-9, position at Laguna Atascosa Refuge. Mr. Gerald B. Gill, Monte Vista Refuge, was chosen as his successor and will report to Ouray in January.

Mrs. JoAnn Coleman, Clerk Typist, GS-4, resigned October 22 to return with her family to Oregon. Her replacement, Mrs. Norma Richardson, a transferee from the Vernal office of the U. S. Forest Service, entered on duty November 30

Mrs. Richardson prepared parts VI A, B, C, E, and F, and typed report.

C. Signature.

Prepared By:

H. J. Johnson 1/14/65

H. J. Johnson, Refuge Manager

Reviewed By:

William J. Krummes

Chief, Division of Wildlife

Date: 1/19/65

Reviewed By:

_____

Date: _____

3-1750
Form NR-1
(Rev. March 1953)

WATERFOWL

REFUGE Ouray National Wildlife Refuge MONTHS OF January TO April 1964, 19

(1) Species	(2) Weeks of reporting period 1	2	3	4	5	6	7	8	9	10
Swans:										
Whistling										
Trumpeter										
Geese:										
Canada										45
Cackling										
Brant										
White-fronted										
Snow										
Blue										
Other										
Ducks:										
Mallard										2000
Black										
Gadwall										
Baldpate										
Pintail										300
Green-winged teal										50
Blue-winged teal										
Cinnamon teal										
Shoveler										
Wood										
Redhead										
Ring-necked										
Canvasback										
Scaup										3
Goldeneye										
Bufflehead										
Ruddy										
Other										

3 -1750a
Cont. NR-1
(Rev. March 1953)

WATERFOWL
(Continuation Sheet)

REFUGE Curay National Wildlife Refuge MONTHS OF January TO April 1964, ~~19~~

(1) Species	(2) Weeks of reporting period: 11	12	13	14	15	16	17	18	(3) Estimated waterfowl days use	(4) Production: Broods seen	Estimated total
Swans:											
Whistling											
Trumpeter											
Geese:											
Canada		25	31	28	21	7		10	1,169		
Cackling											
Brant											
White-fronted											
Snow											
Blue											
Other											
Ducks:											
Mallard	810	2700	2400	200	200	50	150	100	60,270		
Black											
Gadwall			15			50		20	595		
Baldpate		200				50		30	1,960		
Pintail	150		150			25	25	15	4,655		
Green-winged teal	100	100	100				25	20	2,765		
Blue-winged teal								30	210		
Cinnamon teal								25	175		
Shoveler											
Wood											
Redhead											
Ring-necked											
Canvasback											
Scaup									21		
Goldeneye											
Bufflehead	1								7		
Ruddy											
Other											
Coot:											

(over)

	(5) Total Days Use	(6) Peak Number	(7) Total Production
Swans			
Geese	1,169	45	
Ducks	70,658	2700	
Coots			

SUMMARY

Principal feeding areas: Sheppard Bottom

Principal nesting areas: None

Reported by: H. J. Johnson, Refuge Manager

INSTRUCTIONS (See Secs. 7531 through 7534, Wildlife Refuges Field Manual)

(1) Species: In addition to the birds listed on form, other species occurring on refuge during the reporting period should be added in appropriate spaces. Special attention should be given to those species of local and national significance.

(2) Weeks of Reporting Period: Estimated average refuge populations.

(3) Estimated Waterfowl Days Use: Average weekly populations x number of days present for each species.

(4) Production: Estimated number of young produced based on observations and actual counts on representative breeding areas. Brood counts should be made on two or more areas aggregating 10% of the breeding habitat. Estimates having no basis in fact should be omitted.

(5) Total Days Use: A summary of data recorded under (3).

(6) Peak Number: Maximum number of waterfowl present on refuge during any census of reporting period.

(7) Total Production: A summary of data recorded under (4).

Interior Duplicating Section, Washington, D. C.
1953

76242

3-1751
Form NR-1A
(Nov. 1945)

MIGRATORY BIRDS
(other than waterfowl)

Refuge Curay National Wildlife Refuge Months of January to April 1964 ~~XXX~~

(1) Species	(2) First Seen		(3) Peak Numbers		(4) Last Seen		(5) Production			(6) Total
Common Name	Number	Date	Number	Date	Number	Date	Number Colonies	Total # Nests	Total Young	Estimated Number
I. Water and Marsh Birds:										
Glossy Ibis	1	3/1	1	3/1	1	3/1				
Great Blue Heron	2	4/3	3	4/10	3	4/10				
Sandhill Crane	23	4/10	23	4/10	9	4/17				
II. Shorebirds, Gulls and Terns:										
Yellow-Legs	6	4/17	6	4/17	6	4/17				
Western Willet	3	4/17	3	4/17	3	4/17				
Long-billed Curlew	4	4/17	4	4/17	4	4/17				
Killdeer	1	3/27	20	4/17	20	4/17				
California Gull	1	4/3	15	4/17	15	4/17				
Ring-billed Gull	1	4/10	1	4/10	1	4/10				

(over)

(1)	(2)		(3)		(4)		(5)	(6)
III. Doves and Pigeons:								
Mourning dove								
White-winged dove								
IV. Predaceous Birds:								
Golden eagle	1	3/6	1	3/6	1	4/10		
Duck hawk	1	3/28	1	3/28	1	5/2		
Horned owl								
Magpie								
Raven								
Crow								
Red-tailed Hawk	1	3/28	2	5/2	2	5/2		
Marsh Hawk	3	3/28	3	3/28	2	4/3		
A. Rough-legged Hawk	2	3/28	2	3/28	1	4/3		
Sparrow Hawk	4	3/28	6	4/3	4	5/2		
Bald Eagle	2	3/28	2	3/28	2	3/28		

Reported by H. J. Johnson, Refuge Manager

INSTRUCTIONS

(1) Species: Use the correct names as found in the A.O.U. Checklist, 1931 Edition, and list group in A.O.U. order. Avoid general terms as "seagull", "tern", etc. In addition to the birds listed on form, other species occurring on refuge during the reporting period should be added in appropriate spaces. Special attention should be given to those species of local and National significance. Groups: I. Water and Marsh Birds (Gaviiformes to Ciconiiformes and Gruiiformes)
II. Shorebirds, Gulls and Terns (Charadriiformes)
III. Doves and Pigeons (Columbiformes)
IV. Predaceous Birds (Falconiformes, Strigiformes and predaceous Passeriformes)

(2) First Seen: The first refuge record for the species for the season concerned.

(3) Peak Numbers: The greatest number of the species present in a limited interval of time.

(4) Last Seen: The last refuge record for the species during the season concerned.

(5) Production: Estimated number of young produced based on observations and actual counts.

(6) Total: Estimated total number of the species using the refuge during the period concerned.

INT.-DUP. SEC., WASH., D.C.

M17058

3-1752
Form NR-2
(April 1946)

UPLAND GAME BIRDS

Refuge Ouray National Wildlife Refuge Months of January to April, 19 64

(1) Species	(2) Density		(3) Young Produced		(4) Sex Ratio	(5) Removals			(6) Total	(7) Remarks
Common Name	Cover types, total acreage of habitat	Acres per Bird	Number broods obs'v'd.	Estimated Total	Percentage	Hunting	For Re-stocking	For Research	Estimated number using Refuge	Pertinent information not specifically requested. List introductions here.
Ring-necked Pheasant	Tree-Brush Complex; River Islands; Agriculture Bottomlands.	25							150	
Chukar Partridge	Benchland Brush Rocky Escarpments								20	
Sage Grouse	Benchland Brush								*	
Gambel's Quail	Tree-Brush Complex; Benchland Brush.								12	

* No observations made during period.

INSTRUCTIONS

Form NR-2 - UPLAND GAME BIRDS.*

(1) SPECIES: Use correct common name.

(2) DENSITY: Applies particularly to those species considered in removal programs (public hunts, etc.). Detailed data may be omitted for species occurring in limited numbers. Density to be expressed in acres per animal by cover types. This information is to be prefaced by a statement from the refuge manager as to the number of acres in each cover type found on the refuge; once submitted, this information need not be repeated except as significant changes occur in the area of cover types. Cover types should be detailed enough to furnish the desired information but not so much as to obscure the general picture. Examples: spruce swamp, upland hardwoods, reverting agriculture land, bottomland hardwoods, short grass prairie, etc. Standard type symbols listed in Wildlife Management Series Nc. 7 should be used where possible. Figures submitted should be based on actual observations and counts on representative sample areas. Survey method used and size of sample area or areas should be indicated under Remarks.

(3) YOUNG PRODUCED: Estimated number of young produced, based upon observations and actual counts in representative breeding habitat.

(4) SEX RATIO: This column applies primarily to wild turkey, pheasants, etc. Include data on other species if available.

(5) REMOVALS: Indicate total number in each category removed during the report period.

(6) TOTAL: Estimated total number using the refuge during the report period. This may include resident birds plus those migrating into the refuge during certain seasons.

(7) REMARKS: Indicate method used to determine population and area covered in survey. Also include other pertinent information not specifically requested.

* Only columns applicable to the period covered should be used.

3-1754
Form NR-4
(June 1945)

SMALL MAMMALS

Refuge Ouray National Wildlife Refuge Year ending April 30, 1964

(1) * Species	(2) Density		(3) Removals					(4) Disposition of Furs					(5)
								Share Trapping					
Common Name	Cover Types & Total Acreage of Habitat	Acres Per Animal	Hunting	Fur Harvest	Predator * Control	For Re-stocking	For Re-search	Permit Number	Trappers Share	Refuge share	Total Refuge Furs Shipped	Furs Donated	Furs Destroyed	Total Population
January - April														
Badger														*
Striped Skunk														
White-tailed Jackrabbit														
Desert Cottontail														
Kit Fox														
Coyote														
Bobcat														
White-tailed Prairie Dog														
Beaver														
Raccoon														

* List removals by Predator Animal Hunter

REMARKS: * There are no large populations of any of the species listed.

Reported by _____
H. J. Johnson, Refuge Manager

INSTRUCTIONS

Form NR-4 - SMALL MAMMALS (Include data on all species of importance in the management program; i. e., muskrats, beaver, coon, mink, coyote. Data on small rodents may be omitted except for estimated total population of each species considered in control operations.)

(1) SPECIES: Use correct common name. Example: Striped skunk, spotted skunk, short-tailed weasel, gray squirrel, fox squirrel, white-tailed jackrabbit, etc. (Accepted common names in current use are found in the "Field Book of North American Mammals" by H. E. Anthony and the "Manual of the Vertebrate Animals of the Northeastern United States" by David Starr Jordan.)

(2) DENSITY: Applies particularly to those species considered in removal programs. Detailed data may be omitted for species occurring in limited numbers. Density to be expressed in acres per animal by cover types. This information is to be prefaced by a statement from the refuge manager as to the number of acres in each cover type found on the refuge; once submitted, this information need not be repeated except as significant changes occur in the area of cover types. Cover types should be detailed enough to furnish the desired information but not so much as to obscure the general picture. Examples: spruce swamp, upland hardwoods, reverting agriculture land, bottom land hardwoods, short grass prairie, etc. Standard type symbols listed in Wildlife Management Series No. 7 should be used where possible. Figures submitted should be based on actual observations and counts on representative sample areas. Survey method used and size of sample area or areas should be indicated under Remarks.

(3) REMOVALS: Indicate the total number under each category removed since April 30 of the previous year, including any taken on the refuge by Service Predatory Animal Hunter. Also show any removals not falling under headingslisted.

(4) DISPOSITION OF FUR: On share-trapped furs list the permit number, trapper's share, and refuge share. Indicate the number of pelts shipped to market, including furs taken by Service personnel. Total number of pelts of each species destroyed because of unprimeness or damaged condition, and furs donated to institutions or other agencies should be shown in the column provided.

(5) TOTAL POPULATION: Estimated total population of each species reported on as of April 30.

REMARKS: Indicate inventory method(s) used, size of sample area(s), introductions, and any other pertinent information not specifically requested.

3-1750
Form NR-1
(Rev. March 1953)

WATERFOWL

REFUGE Ouray National Wildlife Refuge MONTHS OF May TO August, 194

(1) Species	(2) Weeks of reporting period 1	2	3	4	5	6	7	8	9	10
Swans:										
Whistling										
Trumpeter										
Geese:										
Canada	4	6	12							
Cackling										
Brant										
White-fronted										
Snow										
Blue										
Other										
Ducks:										
Mallard	40	100	160	45	16		10	4	10	16
Black										
Gadwall	50	50		19			4	2	33	46
Baldpate										
Pintail	75	25		16						
Green-winged teal	75	25	50	40						
Blue-winged teal	5									
Cinnamon teal	10						4	2		5
Shoveler		15	40	25	2		2	1	4	
Wood										
Redhead										
Ring-necked										
Canvasback										
Scaup									1	
Goldeneye										
Bufflehead										
Ruddy										
Other										
Coot				5	15		12		80	60

3 -1750a
Cont. NR-1
(Rev. March 1953)

WATERFOWL
(Continuation Sheet)

REFUGE Quivey National Wildlife Refuge MONTHS OF May TO August, 19 64

(1) Species	(2) Weeks of reporting period: 11	12	13	14	15	16	17	18	(3) Estimated waterfowl days use	(4) Production: Broods seen	Estimated total
Swans:											
Whistling											
Trumpeter											
Geese:											
Canada		17				30		13	574		
Cackling											
Brant											
White-fronted											
Snow											
Blue											
Other											
Ducks:											
Mallard	36		4	15	15	23	7	325	5796	3	3
Black											
Gadwall	73		3	22				13	2219	2	1
Baldpate					8			3	91		
Pintail	2							20	986		
Green-winged teal					10	6		20	1588		
Blue-winged teal									35		
Cinnamon teal	15		16	16				5	441	1	
Shoveler									683		
Wood											
Redhead											
Ring-necked											
Canvasback											
Scaup											
Goldeneye											
Bufflehead											
Ruddy											
Other											
Coot:	15		45		20	4		25	1967		

(over)

	(5) Total Days Use	(6) Peak Number	(7) Total Production
Swans	0	0	0
Geese	574	30	0
Ducks	11,753	390	54
Coots	1,967	80	0

SUMMARY

Principal feeding areas Sheppard Bottom

Principal nesting areas Sheppard, Leota and Hood Bottoms

Reported by

H. J. Johnson, Refuge Manager

INSTRUCTIONS (See Secs. 7531 through 7534, Wildlife Refuges Field Manual)

(1) Species: In addition to the birds listed on form, other species occurring on refuge during the reporting period should be added in appropriate spaces. Special attention should be given to those species of local and national significance.

(2) Weeks of Reporting Period: Estimated average refuge populations.

(3) Estimated Waterfowl Days Use: Average weekly populations x number of days present for each species.

(4) Production: Estimated number of young produced based on observations and actual counts on representative breeding areas. Brood counts should be made on two or more areas aggregating 10% of the breeding habitat. Estimates having no basis in fact should be omitted.

(5) Total Days Use: A summary of data recorded under (3).

(6) Peak Number: Maximum number of waterfowl present on refuge during any census of reporting period.

(7) Total Production: A summary of data recorded under (4).

Interior Duplicating Section, Washington, D. C.
1953

16242

3-1751
Form NR-1A
(Aug. 1952)

MIGRATORY BIRDS
(Other than Waterfowl)

Refuge Ouray National Wildlife Refuge Months of May to August FOR 1964

(1) Species	(2) First Seen		(3) Peak Concentration		(4) Last Seen		(5) Production			(6) Total
Common Name	Number	Date	Number	Inclusive Dates	Number	Date	Number Colonies	Total # Nests	Total Young	Estimated Use
I. Water and Marsh Birds:										
Eared Grebe	1	5/8	6	5/15	6	5/15				21
Double-crested Cormorant	3	7/10	3	7/10	3	7/10				21
Pelican	6	6/26	5	6/28	6	6/26				42
Glossy Ibis	1	5/15	25	5/29	22	8/21				336
Great Blue Heron	2	5/8	23	9/4	23	9/4				861
Snowy Egret	1	5/8	5	7/2	2	9/4				91
Black-crowned Heron	1	5/23	6	8/21	6	8/21				63
II. Shorebirds, Gulls and Terns:										
Phalarope-Wilson's	1	5/8	2	5/15	2	5/15				21
Avocet	6	5/23	8	5/29	2	9/4				112
Yellow-Legs	14	8/7	18	8/21	3	9/4				245
Sandpiper, Spotted	8	5/23	8	5/23	3	8/21				77
Long-billed Curlew	1	5/29	1	5/29	1	5/29				7
Killdeer	4	5/8	10	6/5	8	8/4				476
Ring-billed Gull	3	5/29	200	8/28	200	8/28				1421
Black Tern	6	5/29	6	5/29	6	5/29				42
Wilson's Snipe	2	8/21	2	8/21	2	8/21				14

(over)

(1)	(2)		(3)		(4)		(5)	(6)
III. Doves and Pigeons:								
Mourning dove	300	5/8	3000	8/21	100	9/4		
White-winged dove								
IV. Predaceous Birds:								
Golden eagle								
Duck hawk	1	5/8	1	5/23	1	5/23		14
Horned owl								
Magpie								
Raven								
Crow								
Marsh Hawk	2	5/8	2	5/8	1	9/4		21
Turkey Vulture	4	5/8	4	5/8	2	5/29		42
Cooper's Hawk	1	6/5	1	6/5	1	6/5		7
Red-tailed Hawk	1	5/15	1	5/15	1	8/7		35
A. Rough-legged Hawk	1	5/8	1	5/8	1	5/8		7
Sparrow Hawk	8	5/8	8	8/7	8	9/4		406

Reported by H. J. Johnson, Refuge Manager

INSTRUCTIONS (See Sec. 7532, Wildlife Refuges Field Manual)

(1) Species: Use the correct names as found in the A.O.U. Checklist, 1931 Edition, and list group in A.O.U. order. Avoid general terms as "seagull", "tern", etc. In addition to the birds listed on form, other species occurring on refuge during the reporting period should be added in appropriate spaces. Special attention should be given to those species of local and National significance. Groups: I. Water and Marsh Birds (Gaviiformes to Ciconiiformes and Gruiiformes)
II. Shorebirds, Gulls and Terns (Charadriiformes)
III. Doves and Pigeons (Columbiformes)
IV. Predaceous Birds (Falconiformes, Strigiformes and predaceous Passeriformes)

(2) First Seen: The first migration record for the species for the reporting period.

(3) Peak Numbers: Estimated number and inclusive dates when peak population of the species occurred.

(4) Last Seen: The last refuge record for the species during the season concerned.

(5) Production: Estimated number of young produced based on observations and actual counts.

(6) Total: Estimated species days use (average population X no. days present) of refuge during the reporting period.

Interior—Duplicating Section, Washington, D. C. 26014

3-1752
Form NR-2
(April 1946)

UPLAND GAME BIRDS

Refuge Curry National Wildlife Refuge Months of May to August, 1964

(1) Species	(2) Density		(3) Young Produced		(4) Sex Ratio	(5) Removals			(6) Total	(7) Remarks
Common Name	Cover types, total acreage of habitat	Acres per Bird	Number broods obs'v'd.	Estimated Total	Percentage	Hunting	For Re-stocking	For Research	Estimated number using Refuge	Pertinent information not specifically requested. List introductions here.
ng-necked easant	Tree-Brush Complex; River Islands; Agriculture Bottom-lands.	2.3	9	1040	2.3:1	0	0	0	1300	
ukar rtridge	Benchland Brush Rocky Escarpments								*	
abel's ail	Tree-Brush Complex; Benchland Brush.								*	
se Grouse	Benchland Brush								*	

* No observations were made during the period but they are using the area in limited numbers.

INSTRUCTIONS

Form NR-2 - UPLAND GAME BIRDS.*

(1) SPECIES: Use correct common name.

(2) DENSITY: Applies particularly to those species considered in removal programs (public hunts, etc.). Detailed data may be omitted for species occurring in limited numbers. Density to be expressed in acres per animal by cover types. This information is to be prefaced by a statement from the refuge manager as to the number of acres in each cover type found on the refuge; once submitted, this information need not be repeated except as significant changes occur in the area of cover types. Cover types should be detailed enough to furnish the desired information but not so much as to obscure the general picture. Examples: spruce swamp, upland hardwoods, reverting agriculture land, bottomland hardwoods, short grass prairie, etc. Standard type symbols listed in Wildlife Management Series No. 7 should be used where possible. Figures submitted should be based on actual observations and counts on representative sample areas. Survey method used and size of sample area or areas should be indicated under Remarks.

(3) YOUNG PRODUCED: Estimated number of young produced, based upon observations and actual counts in representative breeding habitat.

(4) SEX RATIO: This column applies primarily to wild turkey, pheasants, etc. Include data on other species if available.

(5) REMOVALS: Indicate total number in each category removed during the report period.

(6) TOTAL: Estimated total number using the refuge during the report period. This may include resident birds plus those migrating into the refuge during certain seasons.

(7) REMARKS: Indicate method used to determine population and area covered in survey. Also include other pertinent information not specifically requested.

* Only columns applicable to the period covered should be used.

3-1750b
Form NR-1B
(Rev. Nov. 1957)

UNITED STATES
DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
BUREAU OS SPORT FISHERIES AND WILDLIFE

WATERFOWL UTILIZATION OF REFUGE HABITAT

Refuge Ouray National Wildlife Refuge For 12-month period ending August 31, 1964

Reported by H. J. Johnson Title Refuge Manager

(1) Area or Unit Designation	(2) Habitat Type	Habitat Acreage		(3) Use-days	(4) Breeding Population	(5) Production
Brennen Bottom	Crops	0	Ducks	0		
	Upland	781	Geese	0		
	Marsh	90	Swans	0		
	Water	89	Coots	0		
	Total	960	Total	0		
Johnson Bottom	Crops	0	Ducks	0		
	Upland	607	Geese	0		
	Marsh	68	Swans	0		
	Water	205	Coots	0		
	Total	880	Total	0		
Leota Bottom	Crops	0	Ducks	2,198		
	Upland	3,172	Geese	72		
	Marsh	674	Swans	0		
	Water	634	Coots	0		
	Total	4,480	Total	2,270		
Sheppard Bottom	Crops	100	Ducks	286,900	7	48
	Upland	2,212	Geese	9,616		
	Marsh	283	Swans	0		
	Water	285	Coots	1,078		
	Total	2,880	Total	297,594	7	48
Wyasket	Crops	0	Ducks	2,086		
	Upland	3,425	Geese	70		
	Marsh	438	Swans	0		
	Water	217	Coots	0		
	Total	4,080	Total	2,156		
Wood Bottom	Crops	0	Ducks	2,744	1	6
	Upland	130	Geese	595		
	Marsh	540	Swans	0		
	Water	50	Coots	1,358		
	Total	720	Total	4,697	1	6
Refuge Totals	Crops	100	Ducks	293,928	8	54
	Upland	10,327	Geese	10,353		
	Marsh	2,093	Swans	0		
	Water	1,480	Coots	2,436		
	Total	14,000	Total	306,717	8	54

(over)

INSTRUCTIONS

All tabulated information should be based on the best available techniques for obtaining these data. Estimates having no foundation in fact must be omitted. Refuge grand totals for all categories should be provided in the spaces below the last unit tabulation. Additional forms should be used if the number of units reported upon exceeds the capacity of one page. This report embraces the preceding 12-month period, NOT the fiscal or calendar year, and is submitted annually with the May-August Narrative Report.

(1) Area or Unit: A geographical unit which, because of size, terrain characteristics, habitat type and current or anticipated management practices, may be considered an entity apart from other areas in the refuge census pattern. The combined estimated acreages of all units should equal the total refuge area. A detailed map and accompanying verbal description of the habitat types of each unit should be forwarded with the initial report for each refuge, and thereafter need only be submitted to report changes in unit boundaries or their descriptions.

(2) Habitat: Crops include all cultivated croplands such as cereals and green forage, planted food patches and agricultural row crops; upland is all uncultivated terrain lying above the plant communities requiring seasonal submergence or a completely saturated soil condition a part of each year, and includes lands whose temporary flooding facilitates use of non-aquatic type foods; marsh extends from the upland community to, but not including, the water type and consists of the relatively stable marginal or shallow-growing emergent vegetation type, including wet meadow and deep marsh; and in the water category are all other water areas inundated most or all of the growing season and extending from the deeper edge of the marsh zone to strictly open-water, embracing such habitat as shallow playa lakes, deep lakes and reservoirs, true shrub and tree swamps, open flowing water and maritime bays, sounds and estuaries. Acreage estimates for all four types should be computed and kept as accurate as possible through reference to available maps supplemented by periodic field observations. The sum of these estimates should equal the area of the entire unit.

(3) Use-days: Use-days is computed by multiplying weekly waterfowl population figures by seven, and should agree with information reported on Form NR-1.

(4) Breeding Population: An estimate of the total breeding population of each category of birds for each area or unit.

(5) Production: Estimated total number of young raised to flight age.

Interior Duplicating Section, Washington, D. C. 27580

3-1750
Form NR-1
(Rev. March 1953)

WATERFOWL

REFUGE Ouray National Wildlife Refuge MONTHS OF September 1 TO December 31, 1964

(1) Species	(2) Weeks of reporting period: Sept. 1 - 7	Sept. 8 - 14	Sept. 15 - 21	Sept. 22 - 28	Sept. 29 - Oct. 5	Oct. 6 - 13	Oct. 14 - 20	Oct. 21 - 26	Oct. 27 - Nov. 2	Nov. 3 - 9
	1	2	3	4	5	6	7	8	9	10
Swans:										
Whistling										
Trumpeter										
Geese:										
Canada	13	83	25	0	90	90	87	94	94	47
Cackling										
Brant										
White-fronted										
Snow										
Blue										
Other										
Ducks:										
Mallard	325	990	1060	500	600	700	1500	2000	3000	2000
Black										
Gadwall	15	15	10			100				
Baldpate	5	10	5	100				200	500	
Pintail	20	10	30		100	100	75	100		200
Green-winged teal	20	15	15	30	35	25	100	100	100	100
Blue-winged teal				30	40	25	100	100	100	100
Cinnamon teal	5	40	100							
Shoveler										
Wood										
Redhead										
Ring-necked										
Canvasback					10	10	30	40	40	30
Scaup										
Goldeneye										
Bufflehead										
Ruddy					70					
Other										
Coot:	25	43	30	30	6					

INT.-DUP., D.C.-53824-59

3 -1750a
Cont. NR-1
(Rev. March 1953)

WATERFOWL
(Continuation Sheet)

REFUGE Ouray National Wildlife Refuge MONTHS OF September 1 TO December 31, 1964

(1) Species	(2) Nov. Weeks of reporting period 10 - 16 (11)	17 - 22 (12)	23 - 29 (13)	(2) Dec. 30 - 6 (14)	7 - 13 (15)	14 - 20 (16)	21 - 27 (17)	4 days (18)	(3) Estimated waterfowl days use	(4) Production Broods seen	(4) Production Estimated total
Swans:											
Whistling											
Trumpeter											
Geese:											
Canada	18	20		30	30	64	30	30	6,185		
Cackling											
Brant											
White-fronted											
Snow											
Blue											
Other											
Ducks:											
Mallard	100	100		150	300	300	400	300	103,075		
Black											
Gadwall									900		
Baldpate									7,840		
Pintail									4,225		
Green-winged teal									3,920		
Blue-winged teal									3,605		
Cinnamon teal									1,015		
Shoveler											
Wood											
Redhead											
Ring-necked											
Canvasback									960		
Scaup											
Goldeneye											
Bufflehead											
Ruddy									480		
Other											
Coot:									930		

(over)

	(5) Total Days Use	(6) Peak Number	(7) Total Production
Swans			
Geese	6,185	94	
Ducks	126,110	3,740	
Coots	938	43	

SUMMARY

Principal feeding areas

Principal nesting areas

Reported by W. O. Johnson

INSTRUCTIONS (See Secs. 7531 through 7534, Wildlife Refuges Field Manual)

(1) Species: In addition to the birds listed on form, other species occurring on refuge during the reporting period should be added in appropriate spaces. Special attention should be given to those species of local and national significance.

(2) Weeks of Reporting Period: Estimated average refuge populations.

(3) Estimated Waterfowl Days Use: Average weekly populations x number of days present for each species.

(4) Production: Estimated number of young produced based on observations and actual counts on representative breeding areas. Brood counts should be made on two or more areas aggregating 10% of the breeding habitat. Estimates having no basis in fact should be omitted.

(5) Total Days Use: A summary of data recorded under (3).

(6) Peak Number: Maximum number of waterfowl present on refuge during any census of reporting period.

(7) Total Production: A summary of data recorded under (4).

Interior Duplicating Section, Washington, D. C.
1953

3-1751
Form NR-1A
(Aug. 1952)

MIGRATORY BIRDS
(Other than Waterfowl)

Refuge Ouray National Wildlife Months of January 1, to December 31, 1964

(1) Species	(2) First Seen		(3) Peak Concentration		(4) Last Seen		(5) Production			(6) Total
Common Name	Number	Date	Number	Inclusive Dates	Number	Date	Number Colonies	Total # Nests	Total Young	Estimated Use
I. Water and Marsh Birds:										
Eared Grebe (4)	1	5/8/64	1		1	5/8/64				
Pied-billed Grebe (6)	1	9/18/64	1		1	9/18/64				
Double Crested Cormorant (120)	3	7/10/64	3	7/10/64	3	7/10/64				
Pelican, White (125)	6	6/26/64	6	6/26/64	6	6/26/64				
Glossy Ibis (186)	1	5/1/64	25	5/28/64	3	9/11/64				
Great Blue Heron (194)	2	4/13/64	22	8/21/64	8	9/18/64				
Snowy Egret (197)	1	5/8/64	5	7/2/64	1	9/11/64				
Black Crowned Heron (202)	1	5/28/64	20	9/11/64	20	9/11/64				
Sandhill Crane (205)	23	4/3/64	23	4/3/64	9	4/17/64				
II. Shorebirds, Gulls and Terns:										
California Gull (53)	1	4/3/64			1	4/3/64				
Ring-billed Gull (54)	1	4/10/64	200	8/28/64	200	8/28/64				
Black Tern (77)	6	5/28/64	6	5/28/64	6	5/28/64				
Wilson's Phalarope (224)	1	5/8/64	2	8/15/64	2	8/15/64				
Avocet (225)	6	5/22/64	6	5/22/64	2	9/18/64				
Wilson's Snipe (229)	2	8/21/64	2	8/21/64	2	8/21/64				
Yellow legs (254)	6	4/17/64	25	9/18/64	25	9/18/64				
Western Willet (258)	3	4/17/64	3	4/17/64	3	4/17/64				
Spotted Sandpiper (263)	8	5/22/64	8	5/22/64	8	5/22/64				
Long-billed Curlew (264)	4	4/17/64	4	4/17/64	1	5/28/64				
Killdeer (273)	1	3/28/64	20	4/17/64	10	9/18/64				

(over)

(1)	(2)		(3)		(4)		(5)	(6)
III. Doves and Pigeons:								
Mourning dove								
White-winged dove								
IV. Predaceous Birds:								
Golden eagle (349)	2	3/10/64	3		3	12/ /64		
Duck hawk (356)	1	3/28/64	1		1	5/22/64		
Horned owl								
Magpie	Present all year.							
Raven								
~~Crow~~ Marsh Hawk (331)	3	3/28/64	3		1	12/ /64		
Cooper's Hawk (333)	1	6/5/64	1	6/5/64	1	6/5/64		
Red-tailed Hawk (337)	1	3/28/64	4		1	12/ /64		
Swainson's Hawk (342)	3	4/24/64	3		3	4/24/64		
American Rough-L. (347)	1	3/28/64	2		2	10/23/64		
Ferruginous (348)	5	4/24/64			5	4/24/64		
Bald Eagle (352)	1	3/6/64	34	3/28/64	1	12/ /64		
Prarie Falcon (355)	1	10/2/64						
Sparrow Hawk (360)	4		8		2	9/25/64		

Reported by R J Johnson

INSTRUCTIONS (See Sec. 7532, Wildlife Refuges Field Manual)

(1) Species: Use the correct names as found in the A.O.U. Checklist, 1931 Edition, and list group in A.O.U. order. Avoid general terms as "seagull", "tern", etc. In addition to the birds listed on form, other species occurring on refuge during the reporting period should be added in appropriate spaces. Special attention should be given to those species of local and National significance. Groups: I. Water and Marsh Birds (Gaviiformes to Ciconiiformes and Gruiiformes)
II. Shorebirds, Gulls and Terns (Charadriiformes)
III. Doves and Pigeons (Columbiformes)
IV. Predaceous Birds (Falconiformes, Strigiformes and predaceous Passeriformes)

(2) First Seen: The first migration record for the species for the reporting period.

(3) Peak Numbers: Estimated number and inclusive dates when peak population of the species occurred.

(4) Last Seen: The last refuge record for the species during the season concerned.

(5) Production: Estimated number of young produced based on observations and actual counts.

(6) Total: Estimated species days use (average population X no. days present) of refuge during the reporting period.

Interior—Duplicating Section, Washington, D. C. 26014

3-1752
Form NR-2
(April 1946)

UPLAND GAME BIRDS

Refuge Ouray National Wildlife Refuge Months of September 1, to December 31, 19 64

(1) Species	(2) Density		(3) Young Produced		(4) Sex Ratio	(5) Removals			(6) Total	(7) Remarks
Common Name	Cover types, total acreage of habitat	Acres per Bird	Number broods obs'v'd.	Estimated Total	Percentage	Hunting	For Re-stocking	For Research	Estimated number using Refuge	Pertinent information not specifically requested. List introductions here.
Ring-necked Pheasant	Tree-Brush Complex (1600 A.), River Islands (400 A.) Agriculture Bottomland (1000 A.) Total Acres - 3000.	3.0	0	0					1,000	
Chukar Partridge	Benchland Brush (1500 A.) Rocky Escarpments (2000 A.) Total Acres - 3500.									
Gambel's Quail	Benchland Brush (1500 A.) Tree-Brush Complex (1600 A.) Total Acres - 3100.	No observations were made during this period of any of these birds, but we feel certain that they are using the area in limited numbers.								
Sage Grouse	Benchland Brush (1500 A.) Total Acres - 1500.								12	

INSTRUCTIONS

Form NR-2 - UPLAND GAME BIRDS.*

(1) SPECIES: Use correct common name.

(2) DENSITY: Applies particularly to those species considered in removal programs (public hunts, etc.). Detailed data may be omitted for species occurring in limited numbers. Density to be expressed in acres per animal by cover types. This information is to be prefaced by a statement from the refuge manager as to the number of acres in each cover type found on the refuge; once submitted, this information need not be repeated except as significant changes occur in the area of cover types. Cover types should be detailed enough to furnish the desired information but not so much as to obscure the general picture. Examples: spruce swamp, upland hardwoods, reverting agriculture land, bottomland hardwoods, short grass prairie, etc. Standard type symbols listed in Wildlife Management Series No. 7 should be used where possible. Figures submitted should be based on actual observations and counts on representative sample areas. Survey method used and size of sample area or areas should be indicated under Remarks.

(3) YOUNG PRODUCED: Estimated number of young produced, based upon observations and actual counts in representative breeding habitat.

(4) SEX RATIO: This column applies primarily to wild turkey, pheasants, etc. Include data on other species if available.

(5) REMOVALS: Indicate total number in each category removed during the report period.

(6) TOTAL: Estimated total number using the refuge during the report period. This may include resident birds plus those migrating into the refuge during certain seasons.

(7) REMARKS: Indicate method used to determine population and area covered in survey. Also include other pertinent information not specifically requested.

* Only columns applicable to the period covered should be used.

3-1753
Form NR-3
(June 1945)

BIG GAME

Refuge Curay National Wildlife Refuge Calendar Year 1964

(1) Species	(2) Density	(3) Young Produced	(4) Removals				(5) Losses			(6) Introductions		(7) Estimated Total Refuge Population		(8) Sex Ratio
Common Name	Cover types, total Acreage of Habitat	Number	Hunting	For Re-stocking	Sold	For Research	Predation	Disease	Winter Loss	Number	Source	At period of Greatest use	As of Dec. 31	
Mule Deer	All refuge types 9,200 acres.	100	11									400	60	
Antelope	These animals use the refuge for watering primarily in late summer. Use was only on east side of Green River.											25	0	

Remarks:

Reported by _____

INSTRUCTIONS

Form NR-3 - BIG GAME

(1) SPECIES: Use correct common name; i.e., Mule deer, black-tailed deer, white-tailed deer. It is unnecessary to indicate sub-species such as northern or Louisiana white-tailed deer.

(2) DENSITY: Detailed data may be omitted for species occurring in limited numbers. Density to be expressed in acres per animal by cover types. This information is to be prefaced by a statement from the refuge manager as to the number of acres in each cover type found on the refuge: once submitted, this information need not be repeated except as significant changes occur in the area of cover types. Cover types should be detailed enough to furnish the desired information but not so much as to obscure the general picture. Examples: spruce swamp, upland hardwoods, reverting agriculture land, bottomland hardwoods, short grass prairie, etc. Standard type symbols listed in Wildlife Management Series No. 7 should be used where possible. Figures submitted should be based on actual observations and counts on representative sample areas. Survey method used and size of sample area or areas should be indicated under Remarks.

(3) YOUNG PRODUCED: Estimated total number of young produced on refuge.

(4) REMOVALS: Indicate total number in each category removed during the year.

(5) LOSSES: On the basis of known records or reliable estimates indicate total losses in each category during the year.

(6) INTRODUCTIONS: Indicate the number and refuge or agency from which stock was secured.

(7) TOTAL REFUGE POPULATION: Give the estimated population of <u>each</u> <u>species</u> on the refuge at period of its greatest abundance and also as of Dec. 31.

(8) SEX RATIO: Indicate the percentage of males and females of each species as determined from field observations or through removals.

116008

NR-6

Bureau of Sport Fisheries and Wildlife

PUBLIC RELATIONS

(See Instructions on Reverse Side)

Refuge Ouray National Wildlife Refuge Calendar Year 1964

1. Visits

a. Hunting 60 b. Fishing 0 c. Miscellaneous 200 d. TOTAL VISITS 260

1a. Hunting (on refuge lands)

TYPE	HUNTERS	ACRES	MANAGED BY
Waterfowl			
Upland Game			
Big Game	60	3,000	Refuge
Other			

Number of permanent blinds _____

Man-days of bow hunting included above 60

Estimated man-days of hunting on lands adjacent to refuge 300

1b. Fishing (area open to fishing on refuge lands)

TYPE OF AREA	ACRES	MILES
Ponds or Lakes		
Streams and Shores		

1c. Miscellaneous Visits

Recreation 100 Official 50

Economic Use 50 Industrial _____

2. Refuge Participation (groups)

TYPE OF ORGANIZATION	NO. OF GROUPS	NUMBER IN GROUPS	NO. OF GROUPS	NUMBER IN GROUPS
Sportsmen Clubs				
Bird and Garden Clubs				
Schools	1	18		
Service Clubs				
Youth Groups				
Professional-Scientific				
Religious Groups				
State or Federal Govt.	1	14		
Other	1	35		

3. Other Activities

TYPE	NUMBER	TYPE	NUMBER
Press Releases	10	Radio Presentations	
Newspapers (P.R.'s sent to)	1	Exhibits	
TV Presentations		Est. Exhibit Viewers	

3-1756
(Rev. 4/63)

3-1758
Form NR-8
(Rev. Jan. 1956)

Fish and Wildlife Service Branch of Wildlife Refuges

CULTIVATED CROPS - HAYING - GRAZING

Refuge Ouray National Wildlife Refuge County Uintah State Utah

Cultivated Crops Grown	Permittee's Share Harvested		Government's Share or Return				Total Acreage Planted	Green Manure, Cover and Waterfowl Browsing Crops Type and Kind	Total Acreage
			Harvested		Unharvested				
	Acres	Bu./Tons	Acres	Bu./Tons	Acres	Bu./Tons			
* Wheat			8	300 Bu.	9	350 Bu.	17	17	17
* Barley - Oats			8	200 Bu.	4	100 Bu.	12	12	12
* Corn					30		30	30	30
								Fallow Ag. Land	141

* No share crop. All Refuge produced!

** Only permits originating in Calendar Year 1964. Does not include permit data that originated in 1963

No. of Permittees: Agricultural Operations 0 Haying Operations 2 Grazing Operations 3

Hay - Improved (Specify Kind)	Tons Harvested	Acres	Cash Revenue	GRAZING	Number Animals	AUM'S	Cash Revenue	ACREAGE
Alfalfa	71	65	$427.00	1. Cattle **	130	802	$240.60	5,260
				2. Other				
				1. Total Refuge Acreage Under Cultivation				200
Hay - Wild				2. Acreage Cultivated as Service Operation				200

DIRECTIONS FOR PREPARING FORM NR-8
CULTIVATED CROPS - HAYING - GRAZING

Report Form NR-8 should be prepared on a calendar-year basis for all crops which were planted during the calendar year and for haying and grazing operations carried on during the same period.

Separate reports shall be furnished for Refuge lands in each county when a refuge is located in more than one county or State.

Cultivated Crops Grown - List all crops planted, grown and harvested on the refuge during the reporting period regardless of purpose. Crops in kind which have been planted by more than one permittee or this Service shall be combined for reporting purposes.

Permittee's Share - Only the number of acres utilized by the permittee for his own benefit should be shown under the Acres column, and only the number of bushels of farm crops harvested by the permittee for himself should be shown under the Bushels Harvested column. Report all crops harvested in bushels or fractions thereof except such crops as silage, watermelons, cotton, tobacco, and hay, which should be reported in tons or fractions thereof.

Government's Share or Return - Harvested - Show the acreage and number of bushels harvested for the Government of crops produced by permittees or refuge personnel. Unharvested - Show the exact acreage and the estimated number of bushels of grain available for wildlife. If grazing is made available to waterfowl through the planting of grain, cover, green manure, grazing or hay crops, estimate the tonnage of green food produced or utilized and report under Bushels Unharvested column.

Total Acreage Planted - Report all acreage planted, including crop failures.

Green Manure, Cover and Waterfowl Grazing Crops - Specify the acreage, kind and purpose of the crop. These crops and the acreage may be duplicated under cultivated crops if planted during the year, or a duplication may occur under hay if the crop results from a perennial planting.

Hay - Improved - List separately the kinds of improved hay grown. Annual plantings should also be reported under Cultivated Crops, and perennial hay should be listed in the same manner at time of planting.

Total Refuge Acreage Under Cultivation - Report total land area devoted to agricultural purposes during the year.

INT.-DUP. SEC., WASH., D.C. 91767

3-1570
NR-88
(4/54)

REFUGE GRAIN REPORT

Refuge Ouray National Wildlife Refuge Months of September 1 through December 31, 1954

(1) Variety*	(2) On Hand Beginning of Period	(3) Received During Period	(4) Total	(5) Grain Disposed of				(6) On Hand End of Period	(7) Proposed or Suitable Use*		
				Transferred	Seeded	Fed	Total		Seed	Feed	Surplus
Corn Hybrid 544	0	4 Bu.	4 Bu.		4 Bu.		4 Bu.	1,000 Bu.		X	
Spring Wheat	440	0	440 Bu.			440		250 Bu.*		X	
Oats	0	4 Bu.	2 Bu.		2 Bu.**						
Barley	0	4 Bu.	2 Bu.		2 Bu.**						

* Remainder of 300 Bu. harvested for feeding to captive goose flock.
** Fed in field to fall migratory waterfowl.

(8) Indicate shipping or collection points

(9) Grain is stored at Ouray Refuge.

(10) Remarks None surplus.

*See instructions on back.

NR-8a

REFUGE GRAIN REPORT

This report should cover all grain on hand, received, or disposed of, during the period covered by this narrative report.

Report all grain in bushels. For the purpose of this report the following approximate weights of grain shall be considered equivalent to a bushel: Corn (shelled)—55 lb., corn (ear)—70 lb., wheat—60 lb., barley—50 lb., rye—55 lb., oats—30 lb., soy beans—60 lb., millet—50 lb., cowpeas—60 lb., and mixed—50 lb. In computing volume of granaries, multiply the cubic contents (cu. ft.) by 0.8 bushels.

(1) List each type of grain separately and specifically, as flint corn, yellow dent corn, square deal hybrid corn, garnet wheat, red May wheat, durum wheat, spring wheat, proso millet, combine milo, new era cowpeas, mikado soy beans, etc. Mere listing as corn, wheat, and soybeans will not suffice, as specific details are necessary in considering transfer of seed supplies to other refuges. Include only domestic grains; aquatic and other seeds will be listed on NR–9.

(3) Report all grain received during period from all sources, such as transfer, share cropping, or harvest from food patches.

(4) A total of columns 2 and 3.

(6) Column 4 less column 5.

(7) This is a proposed break-down by varieties of grain listed in column 6. Indicate if grain is suitable for seeding new crops.

(8) Nearest railroad station for shipping and receiving.

(9) Where stored on refuge: "Headquarters granary," etc.

(10) Indicate here the source of grain shipped in, destination of grain transferred, data on condition of grain, unusual uses proposed.

INT.-DUP. SEC., WASH., D.C. 17065

3-1759
Form NR-9
(April 1946)

COLLECTIONS AND RECEIPTS OF PLANTING STOCK
(Seeds, rootstocks, trees, shrubs)

Refuge Ouray National Wildlife Refuge Year 1964

Species	Collections				Receipts		Total Amounts on Hand	Amount Surplus
	Amount	Date or Period of Collection	Method	Unit Cost	Amount	Source		
None								

Interior Duplicating Section,
Washington 25, D. C. 84267

3-1760
Form NR-10
(April 1946)

HAYING AND GRAZING

Refuge Ouray National Wildlife Refuge Year 1964

Permittee	Permit No.	Unit or Location	Actual Acreage Utilized	Animal Use Months	Tons of Hay Harvested	Period of Use From - To	Rate	Total Income	Remarks
Larue Pickup	36511 (Amended)	Wyasket and Wood Bottoms	1,320	245	0	5/1 to 12/31/64	.30	73.50	
Ray Sprouse	36517	Unit 5	2,840	325	0	11/1/64 - 5/30/65	.30	97.50	
Gale G. Wilkins	36513 (Amended)	Leota Bottom	1,100	52	0	Extend from 4/15 to 5/15	.30	15.60	
Gale G. Wilkins	36518	Leota Bottom	1,100	180	0	12/1/64 - 2/28/65	.30	54.00	
Mrs. Austin Wardle	36515	Sheppard Bottom	40		31	6/10 to 9/30	6.66	206.46	
Gale G. Wilkins	36516	Sheppard Bottom	20		39+	6/10 to 9/30	6.66	273.09	Two cuttings!

Totals:

Acreage grazed 5260 Animal use months 802 Total income Grazing $ 240.60

Acreage cut for hay 65 Tons of hay cut 71 Total income Haying 427.00

3-1761
Form NR-11

TIMBER REMOVAL

Refuge Ouray National Wildlife Refuge Year 1964

Permittee	Permit No.	Unit or Location	Acreage	No. of Units Expressed in B. F., ties, etc.	Rate of Charge	Total Income	Reservations and/or Diameter Limits	Species Cut
Anderson, Ivan	36514 Amended, two amendments	Leota, Sheppard and Wood Bottoms	1,000 Approximate	458,000 BF	1.00	458.00	Everything above 6" base diameter to be felled.	Cottonwood

Total acreage cut over 400 Total income $ 458.00

No. of units removed B. F. 120,000 Method of slash disposal Downed!
Cords
Ties
Logs

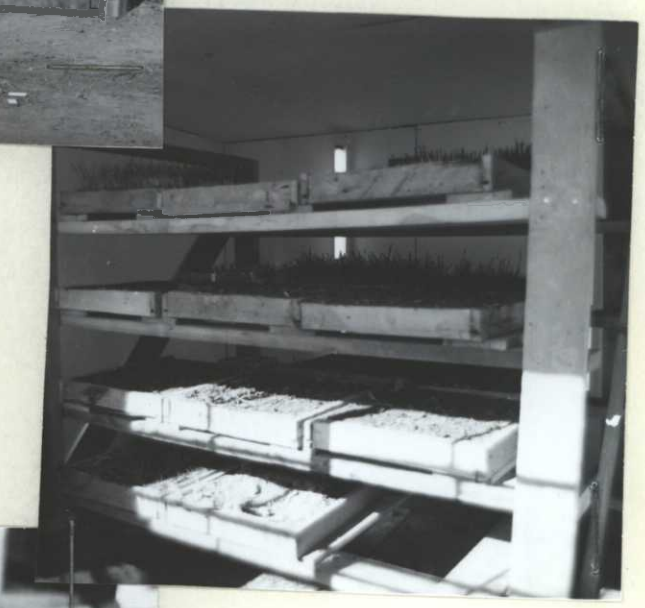
Interior—Duplicating Section, Washington, D. C. 24316

Hot House - - - -

- - - for growing

forage for captive

goose flock - - -



7 days from seed

to this!

Photos by Hansen.

Early morning flight into corn field.

Captive goose flock - - before escape.

Photos by Hansen.

why? (see page 11)

Stand of Cottonwood in Leota Bottom prior to cutting. Junction of Main L, L1, and L2 Dikes and start of Main Drain Canal located in this stand.

During cutting.

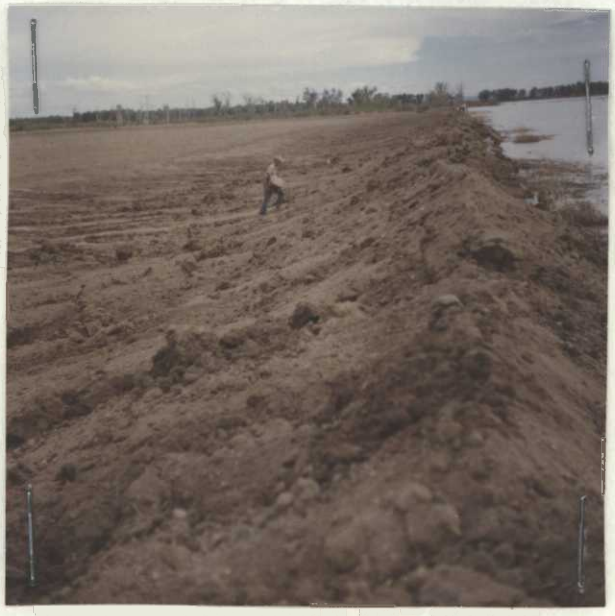
Photos by Hansen.

Merchantable timber? —

— All over but the burning! Belt of green timber across center of picture marks far side of Green River.

Photos by Hansen.

Leota Bottom Flood, June 6, 1964, result of Yampa River rampage.



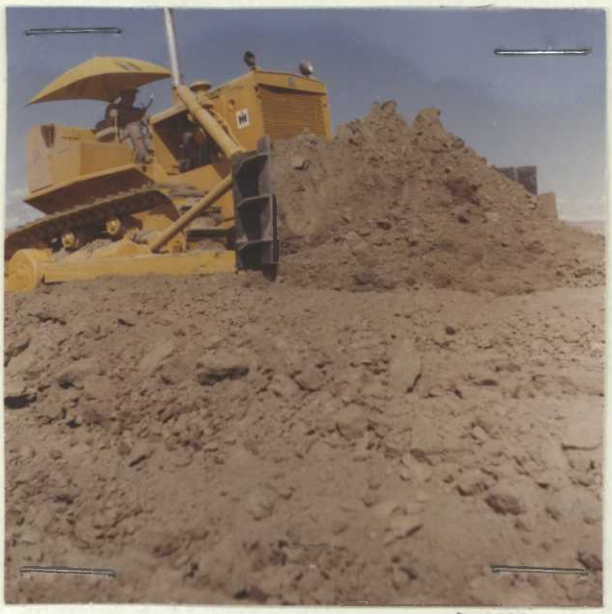
Emergency dike to protect water impoundment development area.

Photos by Hansen.

Wood Bottom flooded and oil polution.

Shamrock Oil trailer tipped off dike in Wood Bottom 6/18/64. Bad enough, but not over one-fourth barrel escaped!

Photos by Hansen



Beginning of dike work

L-4 at Station 3+00,

June 22, 1964.

First concrete -

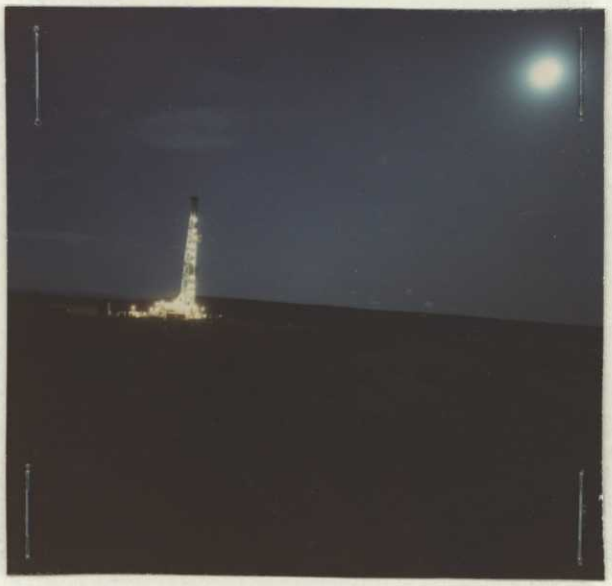
footings, Residence

#1, NW corner,

June 17, 1964

About this time the Kalimar camera went on the blink and we didn't get any good pictures for the records.

Photos by Hansen.



Not a Rocket Ship to the Moon -- just Shamrock Oil Company's Morgan Federal Well #1, Sheppard Bottom, drill rig at 10:00 p.m., June 24, 1964, 3-minute exposure.

Photo by Hansen.